

SEP 14 2006

Appl. No. 10/770,737
Reply to Final office action of July 14, 2006**REMARKS**

This is intended as a full and complete response to the Office Action dated October 04, 2005, having a shortened statutory period for response set to expire on January 04, 2006. Please reconsider the claims pending in the application for reasons discussed below.

After entry of this response, claims 1-3, 5, 6, 9, 21-24, and 26-28 remain pending in the application and are shown above. Claims 1-3, 5-6, 9 and 21-28 are rejected by the Examiner. Claims 29-31 have been withdrawn from consideration. Applicants have canceled claims 4, 7, 8, 10-20, 25, and 29-31. Reconsideration of the claims is requested for reasons presented below.

Claim Rejections – 35 USC § 102

Claims 1-3, 5, 6, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by *Dordi et al.* 6,267,853. Applicants respectfully traverse the rejection.

Dordi does not teach, show, or suggest a modular electroless processing system as recited in claim 1; rather, *Dordi* teaches an electrochemical deposition system for performing electroplating. *Dordi* also does not teach, show, or suggest an electroless processing module comprising a processing enclosure, an electroless activation cell positioned in the enclosure, and an electroless deposition cell positioned in the enclosure as recited in claim 1. *Dordi* teaches that the seed layer repair station 215 may contain one or more electroless deposition cells, but *Dordi* does not teach an electroless activation cell in the repair station 215 (col. 12, lines 21-25).

Thus, *Dordi* does not anticipate claims 1-3, 5, 6, and 9. Accordingly, Applicants submit that independent claim 1, as well as those claims that depend therefrom, are allowable and respectfully request withdrawal of this rejection.

Claims 21 and 23-28 are rejected under 35 U.S.C. 102(e) as being anticipated by *Hongo et al.* 6,921,466. Applicants respectfully traverse the rejection.

Hongo et al. does not teach, show, or suggest that **each** of the at least two substrate processing modules in detachable communication with the factory interface includes a pretreatment/post treatment cell **and** an electroless processing cell as recited in independent claim 21. Rather, *Hongo* teaches that there may be an interchangeable (detachable) electroless plating unit, such as a seed layer forming unit, and a separate interchangeable (detachable) cleaning unit (col. 5, lines 4-5, 21-27, and 59-65). Again with regard to FIG. 31, *Hongo* teaches a separate electroless Cu plating unit (seed layer forming unit 112) or electroless Ru plating unit (barrier layer forming unit 111) and a separate cleaning unit 115 or 118, wherein the units (plating, cleaning, annealing, and the like) may be interchangeable (col. 33, line 59 to col. 34, line 15). With regard to Figures 36 and 45 as pointed out by the Examiner, *Hongo* teaches that the interchangeable (detachable) electroless plating unit 112 may perform plating and cleaning operations without transferring the substrate (col. 37, lines 30-65 and col. 49, lines 10-33), but this teaches away from the module in detachable communication with the factory interface including a pretreatment/post treatment cell and an electroless processing cell.

Thus, *Hongo* does not anticipate claims 21 and 23-28. Accordingly, Applicants submit that independent claim 21, as well as those claims that depend therefrom, are allowable and respectfully request withdrawal of this rejection.

Claim Rejections – 35 USC § 103

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Dordi et al.* 6,267,853 in view of *Davis* 5,779,799. Applicants respectfully traverse the rejection.

Dordi et al. in view of *Davis* does not teach, show, or suggest an electroless processing module comprising a processing enclosure, an electroless activation cell positioned in the enclosure, and an electroless deposition cell positioned in the enclosure as recited in claim 1 for at least the reasons presented above. Accordingly, Applicants submit that claim 9, which depends on the allowable claim 1, is patentable over *Dordi et al.* in view of *Davis* and respectfully request withdrawal of this rejection.

Appl. No. 10/770,737
Reply to Final office action of July 14, 2006

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Hongo et al.* 6,921,466 in view of *Verhaverbeke et al.* 2003/0045098. Applicants respectfully traverse the rejection.

Hongo et al. in view of *Verhaverbeke et al.* does not teach, show, or suggest that *each* of the at least two substrate processing modules in detachable communication with the factory interface includes a pretreatment/post treatment cell *and* an electroless processing cell as recited in independent claim 21 for at least the reasons presented above. Accordingly, Applicants submit that claim 22, which depends on the allowable claim 21, is patentable over *Hongo et al.* in view of *Verhaverbeke et al.* and respectfully request withdrawal of this rejection.

Claim Rejections – 35 U.S.C. § 112

Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In response, Applicants have canceled claim 25, thereby obviating the rejection. Accordingly, Applicants respectfully request withdrawal of the rejection.

SEP 14 2006

Appl. No. 10/770,737
Reply to Final office action of July 14, 2006

Conclusion

The references cited by the Examiner, alone or in combination, do not teach, show or suggest the invention as claimed.

Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



Keith M. Tackett,
Registration No. 32,008
PATTERSON & SHERIDAN, L.L.P.
3040 Post Oak Blvd. Suite 1500
Houston, TX 77056
Telephone: (713) 623-4844
Facsimile: (713) 623-4846
Attorney for Applicant(s)